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Software Engineering 2: “MyTaxi”

Project Reporting

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# 1. Introduction

# 2. Functional Point

## 2.1 Introduction

Calculated in the first phases of the development process, Functional Point is a way to estimate the effort to develop a software product depends on the RASD functionalities of our “MyTaxy”.

The functionalities has been groped in:

* **Internal Logical File (ILF):** homogeneous set of data used and managed by our application (User or Past Request File in the DataBase)
* **External Interface File (EIF):** data used by our application but generated and maintained by other applications, in our project Google Maps and SMS
* **External Input:** elementary operation to elaborate data coming form the external environment such as login, insert user, position, request and reservation
* **External Output**: elementary operation that generates data for the external environment, it usually includes the elaboration of data from logic files such as Notification, request detail ecc
* **External Inquiry:** Elementary operation that involves input and output without significant elaboration of data from logic files

The following table outline the number of Functional Point based on funtionality

and relative complexity:



## 2.2 Internal Logic Files (ILF)

The application included in ILF store the information:

* Users (simple structure)
* PastRequests (simple structure)

The total amount of FPs are 14 = 7 + 7.

## 2.3 External Interface File (EIF)

For the interaction Api are:

* SMS sending (simple structure)
* Google Maps (Medium structure)

The total amount of FPs are 12 = 5 + 7.

## 2.4 External Inputs

The application interacts with the user:

* Login/logout (simple operation)
* Sign up (simple operation)
* Position (simple operation)
* Create Request (simple operation)
* Create Reservation (simple operation)
* Modify and Delete Reservation (medium operation)
* Set Taxi driver state (simple operation)
* Confirm Costumer’s presence (simple operation)
* Decline a ride (simple operation)

The total amount of FPs are 33 = 3+3+3+3+3+4 \* 2+3+3+3.

## 2.5 External Output:

* Notification of Request for users and taxi (medium output)
* Information Recap in PRA (medium output)
* Notification of Reservation (medium output)
* Notification of changing zone

The total amount of FPs are 17 = 5+5+7

## 2.6 External Inquiries:

* Information Recap in PRA (medium operation)

The total amount of FPs are 4

**TOTAL = 80 FPs**

This value can be used as a basis to estimate the size of the project in KLOC and

then use another approach such as COCOMO to estimate the effort.

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# 3. COCOMO approach

To pass from FP to SLOC we use an average conversion factor of 46 as we see in the table described at http://www.qsm.com/resources/function-point-languages-table, an updated

version that adds J2EE of the table included in official manual.

# 4. Schedule

# 5. Allocated Resources

Here are the total amount of hour for all the assignment of our project:

* Requirements Analysis and Specifications Document:
  + Giuseppe Manzi: 40 hours
  + Alessandro Nicolini: 40 hours
* Design Document
  + Giuseppe Manzi: 30 hours
  + Alessandro Nicolini: 30 hours
* Inspection and Test Plan Document:
  + Giuseppe Manzi: 9 hours
  + Alessandro Nicolini: 9 hours
* Project Reporting:
  + Giuseppe Manzi: 10 hours
  + Alessandro Nicolini: 10 hours

The total hours of work during all phases of the project are 178 hours.

*178 hours / (40\*4) hours = 1,12 Person / Months*

Under the assumption that one person can work 40 hours per week.

# 6. Risk

For the project, their relevance and the associated recovery